

**ABSTRACT**

A mechanism for splicing advertisements, local programming and the like into a digital video transport stream is provided. In order to achieve proper splicing, an appropriate number of frames is inserted between bitstreams to properly close a

5 GOP of the first bitstream into which a second bitstream carrying the spliced content is inserted. Program clock references (PCRs) of the bitstreams are adjusted as necessary in order to force continuity between the bitstreams. For inserting advertisements, the PCR of the program stream and ad stream can be tracked, and the PCR of the program stream can be used both before and after splicing. For

10 local program insertion (which are typically substantially longer than advertisements), the PCR of the local program can be used, after adjustment thereof with an offset to maintain continuity at the splice point. The PTS and/or DTS of the inserted bitstream can be modified to keep them continuous at the splice point for both video and audio streams. The spliced bitstream is transcoded to maintain a

15 desired output bit rate, and to provide overflow/underflow protection of the video buffers.